

Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error or Def ro
1	BRS	L1	6962 hyaluronic adj acid	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:23		0
2	BRS	L3	579 poly adj (lactide-co-glycolide)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:26		0
3	BRS	L4	76536 polypeptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:26		0
4	BRS	L5	12953 antibody	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:26		0
5	BRS	L6	8 1 same 3 same (4 or 5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:27		0
6	BRS	L8	13781 growth adj hormone	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:44		0
7	BRS	L9	0 1 same 3 same 8	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:45		0
8	BRS	L10	393 glucagon-like adj peptide	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:45		0

Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Err or Def inits
9	BRS	L11 0	1 same 3 same 10	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:45		0
10	BRS	L12 0	68966 injection or injectable	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:47		0
11	BRS	L13 0	1 same 3 same 12	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:49		0
12	BRS	L14 34418	growth adj factor	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:49		0
13	BRS	L15 1	1 same 3 same 14	USPAT; US-PGPUB; EPO; JPO; DERWENT	2002/07/1 6 12:50		0

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(FILE 'HOME' ENTERED AT 12:51:43 ON 16 JUL 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'
ENTERED AT

12:52:12 ON 16 JUL 2002

L1 38873 S HYALURONIC ACID

L2 2076 S (POLY (W) GLYCOLIDE) OR (POLY (W) LACTIDE-CO-GLYCOLIDE)

L3 4819 S (POLY (W) LACTIC ACID) OR (POLY (W) GLYCOLIC ACID) OR (POLY (

L4 10295 S POLYANHYDRIDE OR POLYORTHOESTER OR POLYETHERESTER OR POLYCAPR

L5 2716715 S POLYPEPTIDE OR ANTIBODY

L6 886616 S (GROWTH HORMONE) OR (GROWTH FACTOR) OR (GLUCAGON-LIKE PEPTIDE

L7 1 S L1 (P) (L2 OR L3 OR L4) (P) (L5 OR L6)

L8 869 S (INJECTABLE FORMULATION)

L9 2 S L1 (P) L8 (P) (L5 OR L6)

L10 2 DUPLICATE REMOVE L9 (0 DUPLICATES REMOVED)

=> log y

FILE 'HOME' ENTERED AT 12:51:43 ON 16 JUL 2002

=> file medline caplus biosis embase scisearch agricola
COST IN U.S. DOLLARS SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST 0.21 0.21

FILE 'MEDLINE' ENTERED AT 12:52:12 ON 16 JUL 2002

FILE 'CAPLUS' ENTERED AT 12:52:12 ON 16 JUL 2002
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FILE 'EMBASE' ENTERED AT 12:52:12 ON 16 JUL 2002
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FILE 'SCISEARCH' ENTERED AT 12:52:12 ON 16 JUL 2002
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FILE 'AGRICOLA' ENTERED AT 12:52:12 ON 16 JUL 2002

=> s hyaluronic acid
L1 38873 HYALURONIC ACID

=> s (poly (w) glycolide) or (poly (w) lactide-co-glycolide)
L2 2076 (POLY (W) GLYCOLIDE) OR (POLY (W) LACTIDE-CO-GLYCOLIDE)

=> s (poly (w) lactic acid) or (poly (w) glycolic acid) or (poly (w) lactic acid-co-glycolic acid)
3 FILES SEARCHED...
L3 4819 (POLY (W) LACTIC ACID) OR (POLY (W) GLYCOLIC ACID) OR (POLY (W)
LACTIC ACID-CO-GLYCOLIC ACID)

=> s polyanhydride or polyorthoester or polyetherester or polycaprolactone or polyesteramide
L4 10295 POLYANHYDRIDE OR POLYORTHOESTER OR POLYETHERESTER OR POLYCAPROLA
CTONE OR POLYESTERAMIDE

=> s polypeptide or antibody
L5 2716715 POLYPEPTIDE OR ANTIBODY

=> s (growth hormone) or (growth factor) or (glucagon-like peptide)
4 FILES SEARCHED...
L6 886616 (GROWTH HORMONE) OR (GROWTH FACTOR) OR (GLUCAGON-LIKE PEPTIDE)

=> s l1 (p) (l2 or l3 or l4) (p) (l5 or l6)
L7 1 L1 (P) (L2 OR L3 OR L4) (P) (L5 OR L6)

=> d l7 1 ibib abs

L7 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1995:412924 CAPLUS
DOCUMENT NUMBER: 122:170233
TITLE: Growth factor and collagen composition for
revitalizing scar tissue
INVENTOR(S): Berg, Richard A.; Rhee, Woonza Min
PATENT ASSIGNEE(S): Collagen Corp., USA
SOURCE: Eur. Pat. Appl., 10 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 637450	A2	19950208	EP 1993-112761	19930809
EP 637450	A3	19950405		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE
JP 07089867 A2 1993-04 JP 1993-198671 1993-00
CA 2103938 AA 19950205 CA 1993-2103938 19930812

PRIORITY APPLN. INFO.: US 1993-99241 19930804

AB A method is disclosed for remediation of scar tissue in a human or an animal by introducing into the scar tissue or adjacent tissue a remedial compn. comprising naturally occurring or synthetic ***growth*** ***factors*** and/or their active peptide segments. of naturally occurring and synthetic ***growth*** ***factors***, and mixts. thereof. Typically the remedial compn. includes a biodegradable or nonbiodegradable support matrix material to provide for timed release of the bioactive material. Preferably, the support matrix is biodegradable and is selected from collagen, glycosaminoglycan, gelatin, albumin, ***hyaluronic*** ***acid***, heparin, oxidized cellulose, dextran, polyglycolic acid, polylactic acid, ***polyanhydride***, and mixts. thereof. To render the scar tissue less dense, to spatially expand the scar tissue fibrils, and to facilitate penetration of the remedial compn. into the scar tissue, a softening, expanding compn. is also introduced into the scar tissue prior to or simultaneously with the remedial compn. A preferred softening, expanding compn. includes .gtoreq.1 dried collagen-contg. polymer, .gtoreq.1 polymer hydrogel, and a nonaq. liq. carrier material. Thus, an injectable scar tissue-degrading compn. contained ***hyaluronic*** ***acid*** (3%, wt./vol.) and human gingival collagenase (1 mg/10 mL).

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L1 38873 S HYALURONIC ACID
L2 2076 S (POLY (W) GLYCOLIDE) OR (POLY (W) LACTIDE-CO-GLYCOLIDE)
L3 4819 S (POLY (W) LACTIC ACID) OR (POLY (W) GLYCOLIC ACID) OR (POLY (W) POLYANHYDRIDE OR POLYORTHOESTER OR POLYETHERESTER OR POLYCAPR
L4 10295 S 2716715 S POLYPEPTIDE OR ANTIBODY
L5 886616 S (GROWTH HORMONE) OR (GROWTH FACTOR) OR (GLUCAGON-LIKE PEPTIDE
L6 1 S L1 (P) (L2 OR L3 OR L4) (P) (L5 OR L6)

=> s (injectable formulation)
L8 869 (INJECTABLE FORMULATION)

=> s l1 (p) 18 (p) (l5 or l6)
L9 2 L1 (P) L8 (P) (L5 OR L6)

=> duplicate remove 19
PROCESSING COMPLETED FOR L9
L10 2 DUPLICATE REMOVE L9 (0 DUPLICATES REMOVED)

=> d l10 1-2 ibib abs

L10 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1996:323778 CAPLUS
DOCUMENT NUMBER: 125:41781
TITLE: Glycosaminoglycan-synthetic polymer conjugates
INVENTOR(S): Rhee, Woonza M.; Berg, Richard A.
PATENT ASSIGNEE(S): Collagen Corp., USA
SOURCE: U.S., 18 pp. Cont.-in-part of U.S. 5,324,775.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 18
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5510418	A	19960423	US 1993-146843	19931103
US 5162430	A	19921110	US 1989-433441	19891114
US 5324775	A	19940628	US 1992-907518	19920702
US 5304595	A	19940419	US 1992-998802	19921230
US 5306500	A	19940426	US 1993-110577	19930823

US 5376375	A	19941227	US 1994-177578	19940105
US 5523348	A	19940404	US 1994-292415	19940108
CA 2134745	AA	19950504	CA 1994-2134745	19941031
EP 656215	A1	19950607	EP 1994-117227	19941101
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
JP 07278203	A2	19951024	JP 1994-271556	19941104
US 5543441	A	19960806	US 1995-427576	19950424
US 5470911	A	19951128	US 1995-433656	19950504
US 5476666	A	19951219	US 1995-434725	19950504
US 1988-274071 B2 19881121				
US 1989-433441 A2 19891114				
US 1992-907518 A2 19920702				
US 1992-930142 A3 19920814				
US 1993-110577 A3 19930823				
US 1993-146843 A 19931103				
US 1994-177578 A3 19940105				
US 1994-292415 A3 19940818				

PRIORITY APPLN. INFO.:

AB Pharmaceutically acceptable, nonimmunogenic compns. are formed by covalently binding glycosaminoglycans or derivs. thereof, to hydrophilic synthetic polymers via specific types of chem. bonds to provide biocompatible conjugates. Useful glycosaminoglycans include

hyaluronic ***acid***, the chondroitin sulfates, keratan sulfate, chitin and heparin, each of which is chem. derivatized to react with a hydrophilic synthetic polymer. The conjugate comprising a glycosaminoglycan covalently bound to a hydrophilic synthetic polymer may be further bound to collagen to form a three component conjugate having different properties. The hydrophilic synthetic polymer may be polyethylene glycol and derivs. thereof having an av. mol. wt. over a range of from about 100 to about 100,000. The compns. may include other components such as fluid, pharmaceutically acceptable carriers to form

injectable ***formulations***, and/or biol. active proteins such as ***growth*** ***factors*** or cytokines. The conjugates of the invention generally contain large amts. of water when formed. The conjugates can be dehydrated to form a relatively solid implant for use in hard tissue augmentation. The dehydrated, solid implant can further be ground into particles which can be suspended in a non-aq. fluid and injected into a living being (preferably human) for soft tissue augmentation. Once in place, the solid implants or particles rehydrate and expand in size approx. three- to five-fold.

L10 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1995:795229 CAPLUS
 DOCUMENT NUMBER: 123:179528
 TITLE: Glycosaminoglycan-synthetic polymer conjugates
 INVENTOR(S): Rhee, Woonza M.; Berg, Richard A.
 PATENT ASSIGNEE(S): Collagen Corp., USA
 SOURCE: Can. Pat. Appl., 59 pp.
 CODEN: CPXXEB
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 18
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2134745	AA	19950504	CA 1994-2134745	19941031
US 5510418	A	19960423	US 1993-146843	19931103
US 1993-146843 A 19931103				
US 1988-274071 B2 19881121				
US 1989-433441 A2 19891114				
US 1992-907518 A2 19920702				

AB Pharmaceutically acceptable, nonimmunogenic compns. are formed by covalently binding glycosaminoglycans or derivs. thereof, to hydrophilic synthetic polymers via specific types of chem. bonds to provide biocompatible conjugates. Useful glycosaminoglycans include

hyaluronic ***acid***, the chondroitin sulfates, keratan sulfate, chitin and heparin, each of which is chem. derivatized to react with a hydrophilic synthetic polymer. The conjugate comprising a glycosaminoglycan covalently bound to a hydrophilic synthetic polymer may be further bound to collagen to form a three component conjugate having different properties. The hydrophilic synthetic polymer may be polyethylene glycol and derivs. thereof having an av. mol. wt. over a

range of from about 100 to about 100,000. The compns. may include other components such as fluid, pharmaceutically acceptable carriers to form ***injectable*** ***formulations***, and/or biol. active proteins such as ***growth*** ***factors*** or cytokines. The conjugates of the invention generally contain large amts. of water when formed. The conjugates can be dehydrated to form a relatively solid implant for use in hard tissue augmentation. The dehydrated, solid implant can further be ground into particles which can be suspended in a non-aq. fluid and injected into a living being (preferably human) for soft tissue augmentation. Once in place, the solid implants or particles rehydrate and expand in size approx. three- to five-fold.

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L1	38873 S HYALURONIC ACID
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L3	4819 S (POLY (W) LACTIC ACID) OR (POLY (W) GLYCOLIC ACID) OR (POLY (
L4	10295 S POLYANHYDRIDE OR POLYORTHOESTER OR POLYETHERESTER OR POLYCAGR
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L6	886616 S (GROWTH HORMONE) OR (GROWTH FACTOR) OR (GLUCAGON-LIKE PEPTIDE
L7	1 S L1 (P) (L2 OR L3 OR L4) (P) (L5 OR L6)
L8	869 S (INJECTABLE FORMULATION)
L9	2 S L1 (P) L8 (P) (L5 OR L6)
L10	2 DUPLICATE REMOVE L9 (0 DUPLICATES REMOVED)

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	81.50	81.71
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-1.86	-1.86

STN INTERNATIONAL LOGOFF AT 13:04:06 ON 16 JUL 2002